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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/736,615	12/14/2000	Heather Lea Stickler	10007356-1	8911

7590 08/26/2002
HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P. O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

ALCALA, JOSE H

ART UNIT	PAPER NUMBER
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2827

DATE MAILED: 08/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/736,615

Applicant(s)

STICKLER ET AL.

Examiner

Jose H Alcalá

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The sheets of the figures submitted in the IDS, were stuck together when received. Those sheets got damaged when they were separated one from the other. Applicant is required to submit new copies of the figures in order to have them in the file. It is not clear which IDS reference they belong to.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1,5,6 and 11 rejected under 35 U.S.C. 102(b) as being anticipated by the article: "Sun slashes prices, boosts performance across workstation product line" dated May 5,1998 and the figures of the Sun Ultra 60 workstation.

Regarding Claim 1, the figures of the Sun Ultra 60 workstation teach a PCSB assembly comprising: a PCSB; a first plurality of LVD SCSI bus signal trace pairs (left part of Figure 1) formed in said PCSB; and a second plurality of LVD SCSI bus signal trace pairs (right part of Figure 1) formed in said PCSB and positioned next adjacent one another for the entire length thereof comprising a RESET signal trace pair, a SELECT signal trace pair and a BUSY signal trace pair (See Figure 4).

Regarding Claim 5, the figures of the Sun Ultra 60 workstation teach that the PCSB comprises a first exterior surface layer (surface shown in figure 1) and a second exterior surface layer (surface shown in figure 2) opposite said first exterior surface layer and wherein said first plurality of LVD SCSI bus signal trace pairs are positioned in said first surface layer and wherein said second plurality of LVD SCSI bus signal trace pairs are positioned at least partially in said second exterior surface pair.

Regarding Claim 6, the figures of the Sun Ultra 60 workstation teach that a second plurality of signal trace pairs are positioned partially in said first exterior surface layer and partially in said second exterior surface layer. (See figures 1 and 2)

Regarding Claim 11, the figures of the Sun Ultra 60 workstation teach a PCSB comprising; a first surface layer comprising a plurality of LVD SCSI bus signal trace pairs (See Figure 1); and a second surface layer opposite said first surface layer (See figure 2) comprising at least a portion of at least one signal trace pair selected from the group of: a LVD SCSI bus RESET signal trace pair; a LVD SCSI bus SELECT signal trace pair and a LVD SCSI bus BUSY signal trace pair; and excluding all LVD SCSI bus signal trace pairs other than those in said group. See Figure 4.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-4, 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the article : "Sun slashes prices, boosts performance across workstation product line" dated May 5, 1998 and the figures of the Sun Ultra 60 workstation.

Regarding Claim 2, the figures of the Sun Ultra 60 workstation teach all the elements of the instant claimed invention as stated supra for claim 1, but fails to explicitly teach that the minimum spacing of any signal trace pair in said second plurality of signal trace pairs from any signal trace pair in said first plurality of signal trace pairs is about 0.015 in. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the minimum spacing of any signal trace pair in said second plurality of signal trace pairs from any signal trace pair in said first plurality of signal trace pairs is about 0.015 in, thus separating the pairs from both pluralities of trace pairs to avoid any interference from one to the other. In addition, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Regarding Claim 3, the figures of the Sun Ultra 60 workstation fails to explicitly teach that the minimum spacing between any two adjacent signal trace pairs of said second plurality of LVD SCSI bus signal trace pairs is about 0.008 in. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the minimum spacing between any two adjacent signal trace pairs of said second plurality of LVD SCSI bus signal trace pairs is about 0.008 in, thus separating the trace pairs from each other to avoid any interference between them. In addition, it has been held that where the general conditions of a

claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Regarding Claim 4, the figures of the Sun Ultra 60 workstation fails to explicitly teach that the minimum internal spacing between traces of a signal trace pair of any of said second plurality of LVD SCSI signal trace pairs is about 0.006 in. It would have been obvious to decrease the minimum internal spacing between traces of a signal trace pair of any of said second plurality of LVD SCSI signal trace pairs to about 0.006 in, in order to improve integration of the circuit. In addition, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Regarding Claim 7, the figures of the Sun Ultra 60 workstation fails to explicitly teach that said second plurality of signal trace pairs are positioned entirely in said second exterior surface layer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make said second plurality of signal trace pairs to be positioned entirely in said second exterior surface layer, since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ

Regarding Claim 8, the figures of the Sun Ultra 60 workstation fails to explicitly teach a first exterior surface layer and a second exterior surface layer opposite said first exterior surface layer and wherein said first plurality of LVD SCSI bus signal trace pairs are positioned in said first surface layer and wherein said second plurality of LVD SCSI bus signal trace pairs are positioned at least partially in said second exterior surface

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pair. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make said second plurality of signal trace pairs to be positioned entirely in said second exterior surface layer, since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ

Regarding claim 9, the figures of the Sun Ultra 60 workstation teach that said second plurality of signal trace pairs are positioned partially in said first exterior surface layer and partially in said second exterior surface layer. (See figures 1 and 2)

Regarding Claim 10, the figures of the Sun Ultra 60 workstation fails to explicitly teach that said second plurality of signal trace pairs are positioned entirely in said second exterior surface layer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make said second plurality of signal trace pairs to be positioned entirely in said second exterior surface layer, since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ.

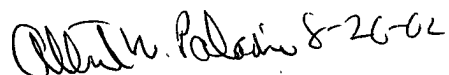
Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jose H Alcala whose telephone number is (703) 305-9844. The examiner can normally be reached on Monday to Friday.

7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Talbott can be reached on (703) 305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JHA
August 26, 2002


ALBERT W. PALADINI
PRIMARY EXAMINER